



Research and Special Programs Administration

SHP 112 2000

DOT-E 10285 (FIFTH REVISION)

EXPIRATION DATE: July 31, 2002

(FOR RENEWAL, SEE 49 CFR § 107.109)

GRANTEE: Western Growers Association (WGA)
 (On behalf of the companies whose names are on file with the OHMEA)
 Newport Beach, California

(See Apenndix A for a list of these companies)

2. PURPOSE AND LIMITATION:

- a. This exemption authorizes the transportation in commerce of certain Division 2.2 gases described in paragraph 6 below in non-DOT specification packaging cylinders. This exemption provides no relief from any Hazardous Materials Regulation (HMR) other than as specifically stated herein.
- b. The safety analyses performed in development of this exemption only considered the hazards and risks associated with transportation in commerce.
- 3. <u>REGULATORY SYSTEM AFFECTED</u>: 49 CFR Parts 106, 107 and 171-180.
- 4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.29 and § 173.315.
- 5. <u>BASIS</u>: This exemption is based on the application of Western Growers Association dated August 3, 2000 and submitted in accordance with § 107.109 and supplemental information dated August 28, 2000.

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6. HAZARDOUS MATERIALS (49 CFR § 172.101):

| Proper Shipping Name/ Hazardous Materials Description | Hazard Class/ Division | Identi- fication Number | Packing Group |
|--|------------------------------|-------------------------------|------------------|
| Ammonia, compressed gas n.o.s. | 2.2 | UN1956 | N/A |
| Refrigerant gas, n.o.s. | 2.2 | UN1078 | N/A |

- 7. SAFETY CONTROL MEASURES: Packaging prescribed is a non-DOT specification packaging which may or may not be mounted on a motor vehicle and is a component of a mobile/portable refrigeration system. These components are commonly known as vacuum tubes, accumulators, refrigeration unit, ice maker, pressure cooler or evaporator. Refrigerant gas, when referenced as such throughout this exemption, intends to include ammonia. Each packaging must conform with the following:
 - a. Total volumetric capacity per vehicle may not exceed 2,500 gallons.
 - b. Packaging put into service after October 1, 1992 must have all components and piping rated at an MAWP of 250 psig. However, regardless of the date a packaging was put into service, a component or piping which will contain liquid refrigerant during transport must have an MAWP of not less than 250 psig.
 - (i) Packaging put into service on or before June 1, 1991 must have a design pressure or maximum allowable working pressure (MAWP) of the refrigeration system rated at not less than 250 psig for the piping and components along the system "high side" line and must not be rated at less than 150 psig for the system "low side" piping and components, however, such packagings must be marked in accordance with paragraph 8.d.
 - (ii) The system "LOW SIDE" must have a pressure gauge with corresponding temperature markings mounted so as to be easily read from the right side of trailer, standing on ground. The gauge is to be permanently tagged "SATURATION GAUGE". "LOW SIDE" pressure must not exceed 150 psig during transport.

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- c. All tanks (i.e. receivers, accumulators and oil separators) must be designed, fabricated, and maintained in accordance with the ASME Code. Piping that contains anhydrous ammonia must be ASTM schedule A53B or A106 40 for piping of 2" and over and schedule 80 for piping less than 2".
- d. Any part of the piping or tank separated by or closed off from another component by means of a valve, blank flange or other device during transit must be equipped with a pressure relief valve set at not more than the component or piping MAWP pressure. System inspection, testing and marking must be as follows:
 - (i) Each refrigeration system must be visually inspected and marked every year. The visual inspection must include items of § 180.407(d)(2) applicable to refrigeration systems. A certificate of the annual visual inspection must be dated and signed by the person performing the inspection and must contain their company affiliation. The certificate must remain at the equipment owners office.
 - (ii) Each refrigeration system must be proof pressure tested and marked every two years beginning with the initial pressure test performed after manufacture. Additional pressure tests must be performed after any modification, repair or damage to a part of the system pressurized with refrigerant gas. System test pressures must not be less than one and one half (1.50) times the rated MAWP of the system component or piping.
 - (iii) Pressure relief valves which are not replaced every five years must be successfully tested and marked every two years at the MAWP for the components or piping to which they are attached. Pressure relief valves may be replaced and marked every 5 years with valves certified at the appropriate MAWP, in which case the valves need not be tested every two years. Valves which do not pass must be repaired or replaced.
 - (iv) Marking mentioned above must be according to paragraph 8.d.

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- e. Prior to movement of packages over public highways, each packaging must be drained of liquid anhydrous ammonia to the greatest extent practical. Residual liquid anhydrous ammonia in each component or piping may not exceed one percent of the component's total volumetric capacity, or 10 gallons, whichever is less. Liquid lading is only authorized in system components with an MAWP rated at not less than 250 psig. Components and piping with a rated MAWP of less than 250 psig must be vented of gaseous lading to the extent that the MAWP is not exceeded at transport temperatures of up to 130°F
- f. Any part of the piping or tank separated by or closed off from another component by means of a valve, blank flange or other device during transit must be equipped with a pressure relief valve set at MAWP.
- g. All lines that must be disconnected for transportation purposes must be closed by means of a cap, plug or blank flange and valves at the end of disconnected lines must be tightly closed. Piping and components rated with an MAWP of 250 psig or greater and which contain liquid anhydrous ammonia must be isolated by appropriate means from piping and components marked "LOW SIDE".

8. <u>SPECIAL PROVISIONS</u>.

- a. All packagings must meet all of the marking and placarding requirements for bulk packages as prescribed in Subparts D and F of Part 172 and reports and all of the requirements for records of inspections, including retest marking, as prescribed in § 173.33.
- b. All shipments must be accompanied by shipping papers.
- c. Owners and shippers of refrigeration systems may not use a motor carrier assigned an "unsatisfactory" safety rating by the Office of Motor Carrier Field Operations, Federal Highway Administration for transportation of these refrigeration systems.
 - (i) Each packaging must be marked within 24 inches of the placard "DOT-E 10285" in accordance with Subparts C and D, of Part 172 on two opposing sides with 2 inch high letters in a contrasting color so the

marking is readily visible from the direction it faces. Additionally, for anhydrous ammonia the words "Inhalation Hazard" must be marked as required in note #13 in \$ 172.102; and within 24" of the placard when practicable.

- (ii) Evidence of testing specified in paragraph 7.e.(i) and (ii) must be painted on right forward side of the packaging, or within 24" of the placard, with 2" high letters indicating type of last test (V = visual, P = pressure; hydrostatic or pneumatic) and month/year in which it was performed.
- (iii) Packagings put into service before June 1, 1991, which have piping and components carrying only gaseous lading during transport, and have a rated MAWP less than 250 psig and equal to or greater than 150 psig, must label such piping and components "LOW SIDE" in a permanent and clearly visible manner.
- (iv) Pressure relief valves must be durably marked with either the date of last test, set-pressure, and testing company or date of last replacement, set-pressure, and certifying company whichever applies.
- 9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle.

10. MODAL REQUIREMENTS:

- a. A current copy of this exemption must be carried aborad each motor vehicle used to transport packages by this exemption.
- b. Drivers must be instructed as to necessary safeguards and proper procedures in the event of unusual delay, fire or accident. Drivers must be familiar with all of the hazards of the particular refrigerant gas used in the system being transported and be knowledgeable of the emergency response procedures particular to the refrigerant in case of an incident. Additionally, drivers must be trained in proper procedures for mitigation of refrigerant releases from the system being transported.
- 11. <u>COMPLIANCE</u>: Failure by a person to comply with any of the following may result in suspension or revocation of this exemption and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. Section 5101 <u>et seq</u>:

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- All terms and conditions prescribed in this exemption 0 and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
- Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this exemption must receive training on the requirements and conditions of this exemption in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this exemption, including display of its number, when the exemption has expired or is otherwise no longer in effect.

12. REPORTING REQUIREMENTS:

The carrier is required to report any incident involving loss of packaging contents or packaging failure to the Associate Administrator for Hazardous Materials Safety (AAHMS) as soon as practicable. (Sections 171.15 and 171.16 apply to any activity undertaken under the authority of this exemption.) In addition, the holder(s) of this exemption must inform the AAHMS, in writing, of any incidents involving the package and shipments made under the terms of this exemption.

Any fatigue, cracking, corrosion or failure of any component of the refrigeration system must be reported to the AAHMS.

Issued at Washington, D.C.:

Robert A/McGuire
Associate Administration

for Hazardous Materials Safety

SEP 1 2 2000

(DATE)

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration, Department of Transportation, Washington, D.C. 20590. Attention: DHM-31.

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The original of this exemption is on file at the above office. Photo reproductions and legible reductions of this exemption are permitted. Any alteration of this exemption is prohibited.

Copies of exemptions may be obtained from the AAHMS, U.S. Department of Transportation, 400 7th Street, Washington, DC 20590-0001, Attention: Records Center, 202-366-5046.

PO: sln

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Western Growers Association's application dated August 2 and 28, 2000 submitted on behalf of:

Hill Brothers Chemical, San Jose, CA D & F Cooling, Holtsville, CA Agri-Cool Inc, Holtsville Central Cooling Company, Freemont, CA Growers Ice Company, Salinas, CA Western Precooling, Salinas, CA The Uni-Kool Company, Salinas, CA Larson Cooling Company, Salinas, CA Post harvest Tech, Salinas, CA Tanimura & Antle, Salinas, CA Bud of California, Salinas, CA Nunes Cooling, Salinas, CA B.C. Systems, Salinas, CA Growers Exchange, Salinas, CA LaRouche Industries, Lodi, CA Andrew Smith Company, Salinas, CA Hoson Produce, Pasadena, CA Skyview Cooling Company, Yuma, AZ Doublecool Company, Holtsville, CA Portacool, Inc., Holtsville, CA Sahara Packaging Company, Brawley, Ca Sam Andrew's Sons, Bakersfield, CA Andrews Distribution Company, Holtsville, CA